

Appl. No. : 10/685,761
Filed : October 15, 2003

AMENDMENTS TO THE CLAIMS

Please cancel Claims 1-22 without prejudice after adding claims 23-70 set forth below:

1. – 22. (Canceled)

23. (New) A device for providing access to a surgical location adjacent the spine of a patient, said device comprising:

an elongate body having a proximal portion and a distal portion and defining a length such that the proximal portion can be positioned at least partially outside the patient and the distal portion can be positioned at least partially inside the patient adjacent the spine; and

a passage extending through the elongate body between the proximal and distal portions sized such that more than one surgical instrument can be positioned simultaneously within the passage;

the distal portion defining a working space in communication with the passage, the working space being sized and adapted to perform a spinal procedure therein, the distal portion having a perimeter which substantially encloses the working space, whereby tissue is substantially maintained away from the working space;

the distal portion perimeter having a first dimension and a second dimension generally transverse to the first dimension, the distal portion being expandable such that (i) in a first position, the second dimension is greater than the first dimension, the second dimension sufficient to extend at least across a disc located between two adjacent vertebrae; and (ii) in a second position, the first and second dimensions are generally the same.

24. (New) The device of Claim 23, wherein the distal portion is expandable to the first and second positions in sequence.

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25. (New) The device of Claim 23, further comprising a tool configured to be inserted into the passage to expand the distal portion.

26. (New) The device of Claim 25, wherein said tool is expandable in a first direction to expand the distal portion to the first position.

27. (New) The device of Claim 25, wherein said tool is expandable in a second direction to expand the distal portion to the second position.

28. (New) The device of Claim 27 wherein the expansion tool is rotatable within the passage.

29. (New) The device of Claim 23, wherein when the distal portion is expanded, the second dimension is between about 28 mm and about 36 mm.

30. (New) The device of Claim 23, wherein in the first position, the first dimension is less than or equal to about 20 mm.

31. (New) The device of Claim 30, wherein when the distal portion is expanded, the second dimension is between about 28 mm and about 36 mm.

32. (New) The device of Claim 23, wherein when the distal portion is expanded, the second dimension is between about 14 mm and about 18 mm.

33. (New) The device of Claim 23, wherein in the first position, the first dimension is about 10 mm.

34. (New) The device of Claim 33, wherein when the distal portion is expanded, the second dimension is between about 14 mm and about 18 mm.

35. (New) The device of Claim 23, wherein the cross-sectional area of said passage at a first location is greater than the cross-sectional area of said passage at a second location, wherein the first location is distal to the second location.

36. (New) The device of Claim 23, wherein the passage has a generally conical shape along the elongate body.

37. (New) The device of Claim 23, wherein the working space is defined by first and second longitudinal arcuate opposing side portions and first and second transverse generally arcuate opposing side portions.

38. (New) The device of Claim 23, wherein the elongate body comprises discrete distal and proximal portions.

39. (New) The device of Claim 23, wherein the elongate body further comprises an outer layer which surrounds the rigid material and extends substantially from a proximal end to a distal end of the elongate body.

40. (New) The device of Claim 23, wherein a cross-sectional shape of the distal portion is substantially similar to a cross-sectional shape of the proximal portion.

41. (New) A device for providing access to a surgical location adjacent the spine of a patient, said device comprising:

an elongate body having a proximal portion and a distal portion and defining a length such that the proximal portion can be positioned at least partially outside the patient and the distal portion can be positioned at least partially inside the patient adjacent the spine; and

a passage extending through the elongate body between the proximal and distal portions sized such that more than one surgical instrument can be positioned simultaneously within the passage;

the distal portion defining a working space in communication with the passage, the working space being sized and adapted to perform a spinal procedure therein, the distal portion having a perimeter which substantially encloses the working space whereby tissue is substantially maintained away from the working space;

the distal portion perimeter having a first dimension and a second dimension generally transverse to the first dimension, the second dimension being greater than the first dimension and sufficient to span at least partially two vertebrae.

42. (New) The device of Claim 41, wherein the elongate body is capable of defining an oblong working space.

43. (New) The device of Claim 41, wherein the elongate body is capable of defining an oval working space.

44. (New) The device of Claim 41, wherein the elongate body is capable of defining a working space sized and shaped to extend over at least a portion of two adjacent pedicles.

45. (New) The device of Claim 41, wherein the cross-sectional area of said passage at a first location is greater than the cross-sectional area of said passage at a second location, wherein the first location is distal to the second location.

46. (New) The device of Claim 41, wherein the passage extends to a distal end of the elongate body.

47. (New) The device of Claim 41, wherein the elongate body is expandable.

48. (New) The device of Claim 47, wherein the first dimension and the second dimension are expandable in sequence.

49. (New) The device of Claim 41, further comprising a tool configured to be inserted into the passage to expand the distal portion.

50. (New) The device of Claim 49, wherein said tool is expandable in a first direction to expand the first dimension.

51. (New) The device of Claim 49, wherein said tool is expandable in a second direction to expand the second dimension.

52. (New) The device of Claim 51, wherein the expansion tool is rotatable within the passage.

53. (New) A method for accessing a surgical location adjacent the spine of a patient, comprising:

providing a device comprising an elongate body having a proximal portion and a distal portion and defining a passage extending therethrough, the elongate body having rigid material extending around substantially the entire perimeter thereof in the proximal portion and the distal portion;

configuring said elongate body for insertion into the patient;

inserting the device into the patient such that the distal portion is adjacent the spine and a portion of the proximal portion is outside the patient;

arranging the elongate body to define a working space in the distal portion to provide access at least across a disc located between two adjacent vertebrae, the working space having a first dimension and a second dimension perpendicular to the first dimension, the second dimension being greater than the first dimension, the second dimension extending generally across the disc;

inserting a first instrument adapted for use in a procedure into the passage to treat the posterior portion of the spine; and

inserting a second instrument adapted for use in a procedure into the passage while the first portion is at least partially in the passage.

54. (New) The method of Claim 53, wherein the passage extends to a distal end of the elongate body.

55. (New) The method of Claim 53, wherein arranging the elongate body includes enclosing a surgical field within the passage within the patient.

56. (New) The method of Claim 53, wherein arranging the elongate body further comprises expanding the distal portion of the elongate body such that the second dimension is lengthened.

57. (New) The method of Claim 56, further comprising expanding the distal portion such that the second dimension is between about 28 mm and about 36 mm.

58. (New) The method of Claim 53, wherein arranging the elongate body further comprises expanding the distal portion of the elongate body such that the first dimension of the distal portion is lengthened.

59. (New) The method of Claim 53, wherein arranging the elongate body comprises arranging the distal portion such that the first dimension is equal to about 10 mm.

60. (New) The method of Claim 53, wherein arranging the elongate body comprises arranging the distal portion such that the first dimension is less than or equal to about 20 mm.

61. (New) The method of Claim 53, wherein arranging the elongate body comprises arranging the distal portion such that the second dimension is between about 14 mm and about 18 mm.

62. (New) The method of Claim 53, wherein arranging the elongate body comprises arranging the distal portion such that the second dimension is between about 28 mm and about 36 mm.

63. (New) The method of Claim 53, further comprising expanding the distal portion such that a cross-sectional area of the distal portion is greater than a cross-sectional area of the proximal portion.

64. (New) The method of Claim 53, further comprising expanding the distal portion such that the elongate body forms a generally conical shape.

65. (New) A method of accessing a surgical location adjacent the spine of a patient, comprising:

providing a device comprising an elongate body having a proximal portion and a distal portion;

inserting the device into the patient such that the distal portion is positioned at least partially inside the patient adjacent the surgical location and the proximal portion is positioned at least partially outside the patient;

providing a non-tubular working space in the distal portion to provide access at least across a disc located between two adjacent vertebrae;

inserting a first instrument adapted for use in a procedure into the passage to treat the posterior portion of the spine; and

inserting a second instrument adapted for use in a procedure into the passage while the first portion is at least partially in the passage.

66. (New) The method of Claim 65, wherein providing a non-tubular working space comprises providing an oblong working space.

67. (New) The method of Claim 65, wherein the passage extends to a distal end of the elongate body.

68. (New) The method of Claim 65, wherein arranging the elongate body includes enclosing a surgical field within the passage within the patient.

69. (New) A device configured to carry out the method of Claim 53.

70. (New) A device configured to carry out the method of Claim 65.

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AMENDMENTS TO THE DRAWINGS

The attached sheets of drawings include new Figures 2A, 2B, 2C and 2D.

Attachments: two (2) originally-filed drawing sheets and three (3) new drawing sheets.